

IMPROVED CMOS TRANSISTORS AND METHODS OF FORMING SAME

Abstract of the Invention

The present invention teaches the formation of CMOS transistors using interfacial nitrogen at the interface between the lightly doped extension regions and an overlying insulating layer in combination with a capping layer of silicon nitride, both prior to the final source/drain anneal. Doses and energies may be increased for the P-channel lightly-doped drain, source and drain regions. The resulting transistors exhibit desirably high drive current and low off-state leakage current and overlap capacitance.